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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,152	10/29/2003	Hans-Peter Broghammer	696.022	9623

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EXAMINER

CADUGAN, ERICA E

ART UNIT PAPER NUMBER

3722

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/696,152

Applicant(s)

BROGHAMMER ET AL.

Examiner

Erica E. Cadugan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-12, 14, 19, 21 and 23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-6, 11, 12, 14, 19, 21 and 23 is/are rejected.
7) ☒ Claim(s) 8-10 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 29 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Note that DE 2700934, a brochure, and DE 29614727 are mentioned on pages 1-2 of the specification.

Election/Restrictions

2. Applicant's election without traverse of the embodiment or species of Figure 7, which reads on claims 1-6, 8-12, 14, 19, 21, 23 in the reply filed on July 13, 2005 is acknowledged.

It is noted that all claims drawn to nonelected species have been canceled.

Claim Rejections - 35 USC § 112

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 2, 3, 19, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There are several positively recited limitations that lack sufficient antecedent bases in the claims. A few examples of this are: "the pressure chamber" in claim 2 (previously "at least

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one..."); "the cutter" in claim 3, line 3 (previously "at least one..."); "the central tool holder" in claim 19; "the assigned expansion chuck" in claim 19.

Claim Rejections - 35 USC § 102

5. Claims 1-6, 11-12, 14, and 23, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 6,270,295 to Hyatt et al.

Hyatt teaches a cutting tool 300 including a "cutter" 326 attached to a "cutter support" (see Figures 5-6, for example). A "pressure chamber" including 338, 342, 344, etc. (Figure 5) is provided spaced from the "cutter", and, when fluid is supplied to the "pressure chamber" via conduit 308, the blade side 334 with the cutter attached thereto is moved radially (with respect to the longitudinal central axis of the tool) outward to thereby adjust the radial position of the "cutter" 326 (see Figures 5-6 and col. 10, line 49 through col. 11, line 33).

Note that the blade support or "wall" 334 "elastically deforms" under pressure of the fluid due to the slots 342, 344, and the area of removed material 340 (see col. 11, lines 7-13 and Figure 5, for example).

Note also that whatever device supplies the pressurized cooling fluid to create the movement of the cutter 326 as described above is considered to be the claimed "pressure generation device".

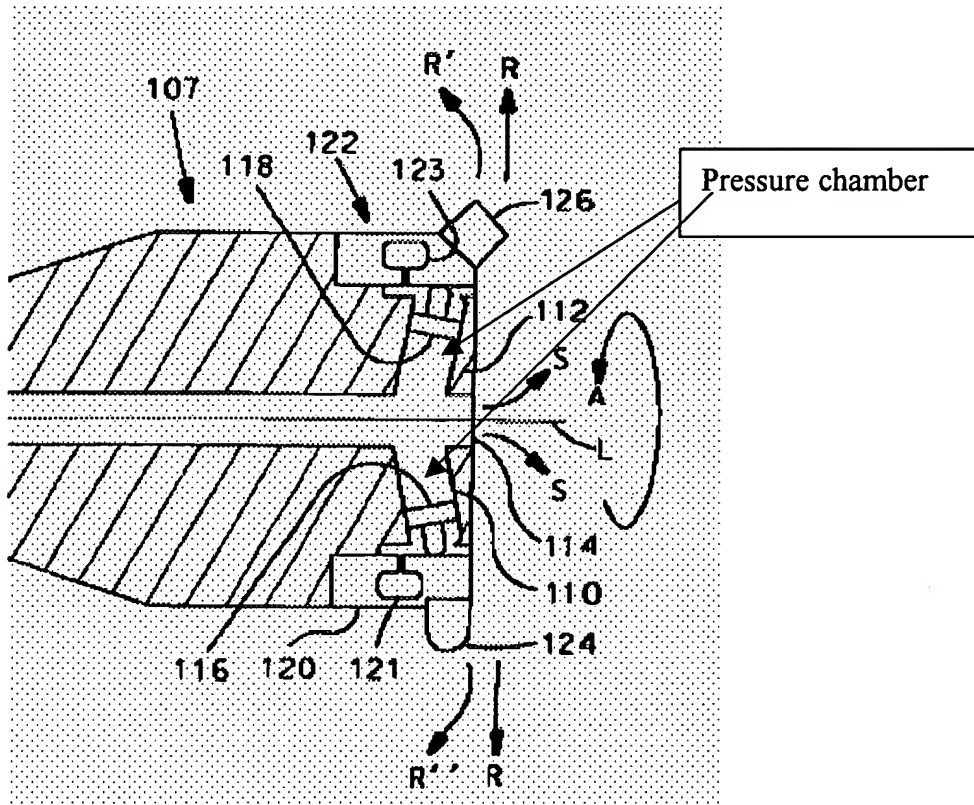
Note also that the described pressure chamber is considered to be "arranged in the adjustment direction of the cutter" in that it is spaced radially therefrom as shown in Figure 5.

Re claim 2, see Figure 5.

Re claim 3, note that the other embodiments taught by Hyatt function similarly to the embodiment described above, and especially see Figure 1A (for example), noting that the axial

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length of the pressure chamber that is labeled in the partial reproduction of Figure 1A below appears to “correspond essentially” to the length of the cutter 126.



Additionally, re claim 4, it appears that in the embodiment of Figure 1A, the axial length of the aforescribed “pressure chamber” is “limited to the region of the tool corner”, as best understood.

Re claim 5, it is noted that the device described previously functions on the principle that the amount of cutter adjustment is based on the fluid pressure applied (see col. 11, lines 1-7, for example), and thus, the elastic deformation between the pressure chamber and the cutter inherently “lies in the size range of the cutter adjustment”.

Re claim 6, see col. 7, lines 61-65, which fluids are considered to be “at least approximately incompressible”.

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Re claim 12, it is noted that via the exit conduit 114 shown in Figure 1A, the pressure chamber shown above can be considered to be “ring” shaped.

Re claim 14, the cutter support described previously is considered to constitute a “tool mounting basic element”, as broadly claimed, in that it serves to “mount” a tool thereon.

Re claim 23, the “tool” 300 described previously is considered to be a “fine” machining tool, as broadly claimed (see especially col. 2, lines 58-62, noting that the device taught by Hyatt is used to “accurately” machine, and that the tool diameter is expandable “uniformly and selectively”).

Allowable Subject Matter

6. Claims 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 19 and 21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed January 9, 2006 have been fully considered but they are not persuasive.

Firstly, on page 7 of Applicant's response, Applicant makes a number of assertions about the structure and manner of operation of the device of the Hyatt patent (U.S. Pat. No. 6,270,295). Specifically, Applicant sets forth the following:

With respect to U.S. Pat. No. 6,270,295, which corresponds to WO 02/060624 A2 (co-pending European patent application), the tool disclosed has an axial slot so that the two

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halves of the tool can be spread apart by using fluid pressure. (See, e.g., Figure 5, two-part construction 334, 336) By providing such an arrangement, the *Hyatt et al.* patent only allows radial adjustment of the cutting edges in order to achieve different diameters by controlling fluid pressure. More particularly, *Hyatt et al.* disclose a tool that, upon application of pressure, causes two-part separation of the tool end. In response, the two halves of the tool are deflected as a whole so that, if they are adjusted at all, the cutting edges are adjusted only at the end of the tool. Moreover, given the two-part separation of the tool end, the tool is limited to radial displacement of cutting edges which lie diametrically opposed to one another. As a result, there is no way to adjust cutting edges of a boring tool that has three circumferentially distributed cutting edges (for example, the so-called “Dreischneider”).

A still further effect of the two-part separation of the tool end is that it is only possible to adjust both the cutting edges either simultaneously, or when the slot (e.g., Figure 5 or Figure 20, 938) lies outside the center, in a pre-determined proportion of the adjustment means. In other words, the cutting edges cannot be controlled individually and independently of one another. Finally, due to the two-part separation of the tool end, pressure fluid tends to leak from the tool ends so that as the two halves are spread apart the amount of pressure that can be generated is limited.

However, it is noted that these arguments or assertions do not appear relevant to the present claim language. It is noted that the features upon which applicant relies (i.e., any structure that allows some sort of adjustment other than “radial”, noting that the present claims do not specify any sort of direction of adjustment; any language relating to adjustment of a cutting edge that is not at the end of the tool; any language relating to the ability to “adjust cutting edges of a boring tool that has three circumferentially distributed edges”, any language related to any “Dreischneider” configuration, noting that such would also appear not to be supported by the present specification; any language relating to the possibility of adjusting the cutting edges other than “simultaneously”, any language that would preclude an adjustment when the “slot lies outside the center, in a pre-determined proportion of the adjustment means”, noting that this assertion by applicant is unclear; any language related to plural cutting edges at all; any claim language related to the ability of any such plural cutting edges to be controlled

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“individually and independently of one another”; any claim language related to some sort of unlimited amount of pressure generation, as implied by the last sentence of Applicant’s second quoted paragraph above) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant has also asserted the following:

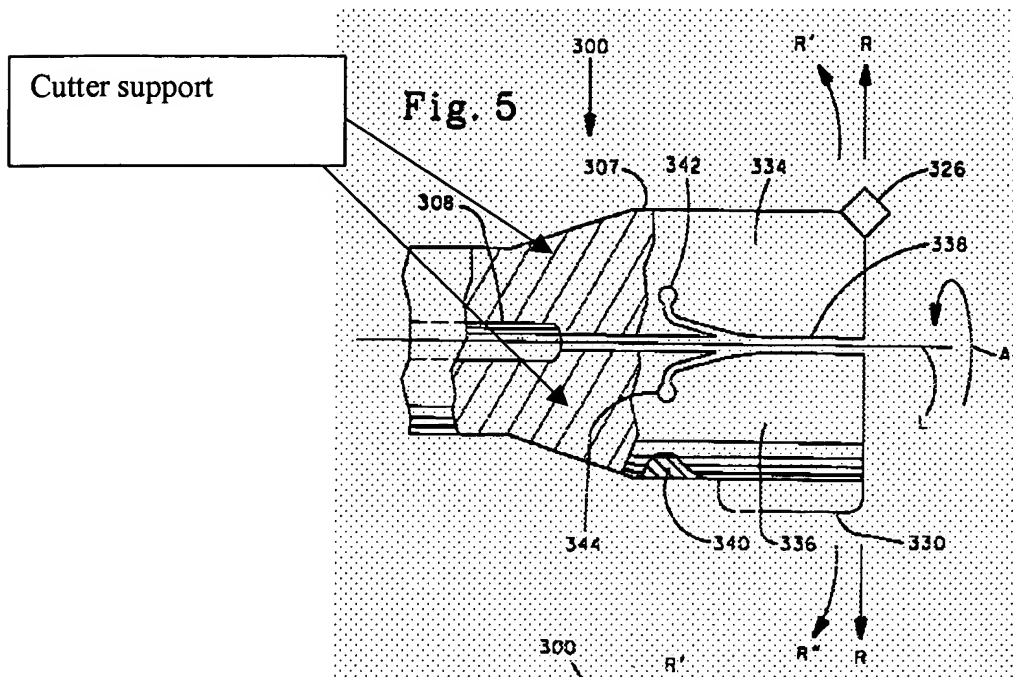
In contrast, as defined in claim 1, a cutter support wall is provided that is elastically deformable upon application of pressure by the pressure transfer means. To clarify this difference between the preferred embodiments and the prior art, Applicant has amended claim 1 to defined the cutter support as being “substantially unitary”.

However, this is not persuasive. Firstly, it is noted that the mere provision of language indicating that the cutter support is “unitary” still does not address or provide any claim language remotely relating to many of Applicant’s assertions. For example, note that Applicant made several assertions related to the presence of plural cutting edges and the actions thereof. However, the fact that Applicant has now provided a “unitary” cutter support does not provide these plural cutting edges in the claims (noting that the limitation “at least one cutter” only requires that there be a single cutter for the limitation to be met by the prior art).

Furthermore, re the “unitary” language, it is noted that the Merriam-Webster’s Collegiate Dictionary, 10th ed., defines “unitary” as 1 a: of or relating to a unit b: based on or characterized by unity or units 2: having the character of a unit: **UNDIVIDED, WHOLE** Thus, the cutter support (see the reproduction of Figure 5 below) on which the “cutter” blade 326 is mounted is considered “unitary” in that it is all one unit. For example, note that the slit 338 does not extend from one end of the cutter support all the way to the other end (to thereby

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completely split the cutter support into multiple entirely self-contained pieces), or else the cutter blade would not be able to be moved radially by the flexing of portions of the cutter support as described in the above and previous rejections



A similar situation exists with the cutter support as shown in Figure 1A (which embodiment was related to at least claim 3) of the Hyatt reference in that the cutter support in that embodiment is also not cut or split into separate entities or units, see Figure 1A.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

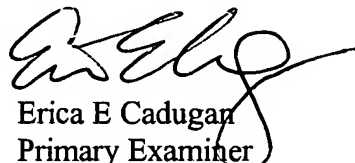
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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica E. Cadugan whose telephone number is (571) 272-4474. The examiner can normally be reached on M-F, 6:30 a.m. to 4:00 p.m., alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Erica E Cadugan
Primary Examiner
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